Smoothing Corridor

Background

It is common for actuaries to use an asset valuation method, to calculate the actuarial value of assets, that smoothes out the effects of short-term volatility in the underlying market value of assets. The current asset smoothing method, however, has no restrictions on the amount that the "smoothed" or actuarial value of assets may deviate from the underlying market value of assets. Chapter 11, Laws of 2003, E1, extended the length of the smoothing period for larger investment gains and losses (up to 8 years) and shortened the length of the smoothing period for smaller gains and losses. Under the current asset smoothing method it is conceivable that during extending periods of asset losses or gains, the actuarial value of assets my produce contribution rates that are not reasonable or dependable.

Committee Activity

Presentation:
November 18, 2003 – Executive Committee Meeting
December 16, 2003 – Full Committee Meeting

Proposal Approved:
December 16, 2003 – Full Committee Meeting

Recommendation to Legislature

Add a 30% market value corridor to the existing asset smoothing method used to determine contribution rates for the state retirement systems. The proposed corridor would ensure that the actuarial value of assets would never exceed 130% of the market value of assets nor drop below 70% of the market value of assets as of the valuation date.

Staff Contact

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Select Committee on Pension Policy

Smoothing Corridor

(December 9, 2003)

Issue	Add a market value corridor to the existing asset smoothing method used to determine contribution rates for the state retirement systems; by request of the State Actuary.
Staff	Matthew M. Smith - 360-753-9144 State Actuary
Members Impacted	This proposed change would affect future employer contribution rates in PERS, TRS, SERS, LEOFF and WSP. It would also affect future employee contribution rates in WSP and future contribution rates for plan 2 members in PERS, TRS, SERS and LEOFF.
Current Situation	The current asset smoothing method has no restrictions on the amount that the "smoothed" or actuarial value of assets may deviate from the underlying market value of assets.
History	There have been no previous efforts to address this issue. Chapter 11, Laws of 2003, E1, extended the length of the smoothing period for larger gains and losses (up to 8 years) and shortened the length of the smoothing period for smaller gains and losses.

Policy Analysis

The funding policy of the Legislature is contained in Chapter 41.45 RCW - Actuarial Funding of State Retirement Systems. RCW 41.45.010 outlines the intent to achieve several funding goals. Two of the goals listed in that section specifically pertain to this issue and are listed below:

- To provide a dependable and systematic process for funding the benefits to members and retirees of the Washington State Retirement Systems;

- To establish predictable and long-term employer contribution rates which will remain a relatively constant proportion of future state budgets.

The asset smoothing method adopted during the 2003 legislative session (Chapter 11, Laws of 2003, E1) was intended to address the volatility of contribution rates under the aggregate funding method when used in combination with the existing asset allocation policy. The longer smoothing period employed under the new method for larger annual asset gains and losses will reduce the volatility of future contribution rates once they return to their long-term expected levels. Without a direct relationship with the underlying market value of assets, however, it is conceivable that during extended periods of asset losses or gains, the actuarial value of assets may produce contribution rates that are not reasonable or dependable.

Options

The most common approach in the private sector is to apply a market value corridor on the actuarial value of assets.

Example of Market Value Corridor

a. Market value of assets at valuation date	$1,000,000
b. Deferred investment gains/(losses)	($250,000)
c. Unadjusted actuarial value of assets (a-b)	$1,250,000
d. 80% of the market value of assets (0.80 x a)	$800,000
e. 120% of the market value of assets (1.20 x a)	$1,200,000
f. Actuarial value of assets at valuation date (c, but not less than d nor greater than e)	$1,200,000

The example above illustrates the application of a 20% market value corridor. This is the required market value corridor for qualified private-sector plans as regulated by the IRS for purposes of determining minimum funding and maximum tax-deductible employer contributions. Public sector plans are exempt from these regulations.

Width of Corridor

The appropriate width of the corridor will depend on the plan sponsor's desire to balance two competing objectives:

- Contribution rate stability; and
- Contribution rate adequacy

The volatility of future investment returns depends, in large part, on the plan's asset allocation policy. The heavier the weight in equity-type investments (stocks, real estate, etc.), versus fixed-income investments (bonds, mortgages, etc.), the larger the potential for volatility in future investment returns.

Turning to contribution rates, the narrower the smoothing corridor (closer to market value), the larger the potential for volatility in future contribution rates. On the other hand, the wider the smoothing corridor (away from market value), the smaller the potential for volatility in future contribution rates. However, without a market value corridor, it is conceivable that during extended periods of asset losses the actuarial value of assets may produce contribution rates that are inadequate.

Recommendation of State Actuary

- 30% market value corridor

A 30% corridor would strike the appropriate balance between contribution rate stability and contribution rate adequacy for the funding of benefits in the state retirement systems. The appropriateness of the asset smoothing corridor should be reviewed periodically against the goals of the actuarial funding chapter.

Executive Committee Recommendation

Forward the issue to the Full Committee for their consideration.

Bill Draft

See attachment.

Fiscal Note (Draft)

See attachment.

FISCAL NOTE – DRAFT

REQUEST NO.

RESPONDING AGENCY:	CODE:	DATE:	BILL NUMBER:
Office of the State Actuary	**035**	**12/09/03**	**Z-0872.1/04**

SUMMARY OF BILL:

This bill impacts the Public Employees, School Employees, Teachers, Law Enforcement and Fire Fighters and State Patrol Retirement Systems by limiting the amount that the actuarial or "smoothed" value of assets may deviate from the underlying market value of assets for purposes of determining employer contributions in Plans 1 and 2/3 and employee contributions in the Plans 2.

Beginning with actuarial studies performed after July 1, 2004, the actuarial value of assets would not be allowed to exceed 130% of the market value of assets or drop below 70% of the market value of assets as of the valuation date.

This bill would require the state actuary to periodically review the appropriateness of the asset smoothing method and recommend changes to the legislature as necessary.

Effective Date: 90 days after session.

CURRENT SITUATION:

The current asset smoothing method defined under RCW 41.45.035 has no restrictions on the amount that the "smoothed" or actuarial value of assets may deviate from the underlying market value of assets.

MEMBERS IMPACTED:

This bill would affect future employee contribution rates in PERS 2, SERS 2, TRS 2, LEOFF 2 and in WSPRS when the 30% market value corridor is triggered in the future. In total, there were 162,664 active members in PERS 2, SERS 2, TRS 2, LEOFF 2 and in WSPRS as of September 30, 2002.

FISCAL IMPACT:

Estimated long-term fiscal impact: None

As of the latest actuarial valuation report (9/30/2002), the ratio of the actuarial value of assets to the market value of assets was 130% (for all systems combined). This ratio varies by system and plan (see table below).

Ratio of Actuarial to Market Value of Assets as of 9/30/2002

PERS 1	PERS 2/3	TRS 1	TRS 2/3	SERS 2/3	LEOFF 1	LEOFF 2	WSP
131%	130%	135%	132%	131%	125%	124%	125%

Ratio of Actuarial to Market Value of Assets as of 9/30/2003*

PERS 1	PERS 2/3	TRS 1	TRS 2/3	SERS 2/3	LEOFF 1	LEOFF 2	WSP
118%	116%	124%	120%	116%	110%	109%	110%

* Estimate

The proposed smoothing corridor would begin with actuarial studies performed after July 1, 2004 and as a result would first apply to the September 30, 2003 actuarial valuation. There would be no long-term impact on projected contribution rates, based on an investment return assumption of 8% per year, since the actuarial value of assets for each system and plan is within the 30% corridor as of September 30, 2003.

Actual investment experience over short-term periods will vary. Successive years of significant investment gains or losses, relative to the 8% assumption, over a short-term experience period may cause the actuarial value of assets to fall outside the proposed smoothing corridor. Under these circumstances, the proposed smoothing corridor would decrease contribution rates when plan asset values fall below the corridor and increase contribution rates when asset values exceed the corridor.

AN ACT Relating to establishing an asset smoothing corridor for actuarial valuations used in the funding of the state retirement systems; and amending RCW 41.45.020 and 41.45.035.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

Sec. 1. RCW 41.45.020 and 2003 c 295 s 8 are each amended to read as follows:

As used in this chapter, the following terms have the meanings indicated unless the context clearly requires otherwise.

(1) "Council" means the pension funding council created in RCW 41.45.100.

(2) "Department" means the department of retirement systems.

(3) "Law enforcement officers' and fire fighters' retirement system plan 1" and "law enforcement officers' and fire fighters' retirement system plan 2" means the benefits and funding provisions under chapter 41.26 RCW.

(4) "Public employees' retirement system plan 1," "public employees' retirement system plan 2," and "public employees' retirement system plan 3" mean the benefits and funding provisions under chapter 41.40 RCW.

(5) "Teachers' retirement system plan 1," "teachers' retirement system plan 2," and "teachers' retirement system plan 3" mean the benefits and funding provisions under chapter 41.32 RCW.

(6) "School employees' retirement system plan 2" and "school employees' retirement system plan 3" mean the benefits and funding provisions under chapter 41.35 RCW.

(7) "Washington state patrol retirement system" means the retirement benefits provided under chapter 43.43 RCW.

(8) "Unfunded liability" means the unfunded actuarial accrued liability of a retirement system.

(9) "Actuary" or "state actuary" means the state actuary employed under chapter 44.44 RCW.

(10) "State retirement systems" means the retirement systems listed in RCW 41.50.030.

(11) "Classified employee" means a member of the Washington school employees' retirement system plan 2 or plan 3 as defined in RCW 41.35.010.

(12) "Teacher" means a member of the teachers' retirement system as defined in RCW 41.32.010(15).

(13) "Select committee" means the select committee on pension policy created in RCW 41.04.276.

(14) "Actuarial value of assets" means the value of pension plan investments and other property used by the actuary for the purpose of an actuarial valuation.

Sec. 2. RCW 41.45.035 and 2003 1st sp.s. c 11 s 1 are each amended to read as follows:

(1) Beginning July 1, 2001, the following long-term economic assumptions shall be used by the state actuary for the purposes of RCW 41.45.030:

(a) The growth in inflation assumption shall be 3.5 percent;

(b) The growth in salaries assumption, exclusive of merit or longevity increases, shall be 4.5 percent;

(c) The investment rate of return assumption shall be 8 percent; and

(d) The growth in system membership assumption shall be 1.25 percent for the public employees' retirement system, the school

employees' retirement system, and the law enforcement officers' and fire fighters' retirement system. The assumption shall be .90 percent for the teachers' retirement system.

(2)(a) Beginning with actuarial studies done after July 1, 2003, changes to plan asset values that vary from the long-term investment rate of return assumption shall be recognized in the actuarial value of assets over a period that varies up to eight years depending on the magnitude of the deviation of each year's investment rate of return relative to the long-term rate of return assumption. Beginning with actuarial studies performed after July 1, 2004, the actuarial value of assets shall not be greater than one hundred thirty percent of the market value of assets as of the valuation date or less than seventy percent of the market value of assets as of the valuation date. Beginning April 1, 2004, the council, by affirmative vote of four councilmembers, may adopt changes to this asset value smoothing technique. Any changes adopted by the council shall be subject to revision by the legislature.

(b) The state actuary shall periodically review the appropriateness of the asset smoothing method in this section and recommend changes to the legislature as necessary.

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